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DATE	D_1	D_2	H	K	MEAN	RAD. VEL.
1920 Aug. 24	−.29A	−.26A	......	......	−.275A	−14.0 km.
1920 Aug. 23	......	......	−.17A	− 21A	....	....
1920 Aug. 24	......	......	−.17A	−.16	....	....
1920 Aug. 31	......	......	(−.56)	−.16	....	....
1920 Sept. 5	......	......	−.37	−.28	−.22	−16.7

The measured displacement of H on August 31st has not been used in forming the mean. The mean of the two sets of velocities determined from the calcium and sodium lines—15.3 km. per second corresponds very well with 16.7 km., the component of the solar motion in the direction of the nova.

A striking feature of the spectrum is the extraordinary strength of the radiation of the lower members of the Balmer series, particularly Hα. The latter band lends a strong orange tinge to the telescopic image of the star. When the spectrum is photographed with a panchromatic plate this band is many times as intense as any other feature of the record. The fall in intensity of the Balmer series with decreasing wave-length is extremely rapid and appears to be uniform. It requires roughly fifty or a hundred times the exposure given to Hα to record a comparable impression of Hδ.

Speaking generally, the spectrum of the nova has, up to the present, followed what we have come to regard as the normal course of development. W. H. WRIGHT.

Mount Hamilton, September 16, 1920.

FURTHER NOTE ON THE SPECTRUM OF NOVA CYGNI

Recent plates, secured with somewhat greater dispersion, determine more clearly the nature of the multiple hydrogen absorption lines referred to in the preceding note. There are now at least five and probably six absorption bands, displaced by different amounts toward the violet from the normal positions of the hydrogen lines. The displacements are recorded in the following table, based on plates of September 17th and 18th, which give substantially identical displacements. The first column of the table designates the several components by letter. Under each number of the Balmer series considered are given the displacements of the components, their intensities and the quantity $10^4\kappa$ where κ is $\Delta\lambda/\lambda$, that is, the displacement divided by the normal wave-length of the hydrogen line in question. The proportionality of displacement to wave-length, within the limits considered, is very well indicated by the constancy of κ for any particular component.

DISPLACEMENTS OF DARK HYDROGEN LINES

Line / Component	$H\beta$			$H\gamma$			$H\delta$			Mean
	$\Delta\lambda$	i	$10^4\kappa$	$\Delta\lambda$	i	$10^4\kappa$	$\Delta\lambda$	i	$10^4\kappa$	$10^4\kappa$
a	......	..	......	−11.6	3	−26.6	−10.8	5	−26.4	−26.5
b	......	..	......	−13.0	4	−30.0	−12.4	5	−30.0	−30.0
c	−17.1	2	−35.2	−15.6	5	−35.9	−14.8	5	−36.0	−35.9
d	......	..	......	−18.6±	1	−43.	−18.4±	1	−45.	−44.
e	−25.3	3	−51.5	−22.5	3	−51.8	−21.4	2	−51.9	−51.8
f	−29.2	2	−60.1	−25.8	1	−59.6	−24.5±	1	−59.5	−59.7

Components "a" and "b," which are separated from each other by only 1½ angstroms, blend at $H\beta$, and are barely resolved for the systems $H\gamma$ and $H\delta$. While there is little question of the duplicity, the measurement of these components may be somewhat inexact because of their closeness. There is perhaps some uncertainty with respect to component "d," which is faint and is not recorded so definitely as the others, but it is probably present, and may be double.

The displacement of the metallic dark line spectrum as determined by some of the stronger lines is as follows, the symbol κ having the same significance as before:

Normal λ	Element	Displacement	$10^4\kappa$
4233.3	Fe	−11.2A	−26.4
4395.2	Ti	−11.6	−26.3
4549.7	Fe-Ti	−12.4	−27.3
5018.6	Fe	−13.8	−27.5
		Mean	−26.9

The value of κ is therefore essentially in agreement with that corresponding to component "a" of the hydrogen series, that is, the metallic dark line spectrum agrees in position with the least displaced set of hydrogen dark lines.

The two strong lines to the violet of $H\delta$, which were so conspicuous in the spectrum of *Nova Aquilae* No. 3, and have been ascribed by Baxandall to the enhanced nitrogen lines at 4097 and 4103 A, are strongly impressed on a plate taken on September 21st. They are less displaced than in the spectrum of *Nova Aquilae.*

September 22, 1920. W. H. WRIGHT.

THE SPECTRUM OF NOVA CYGNI 1920

Observations of the spectrum of *Nova Cygni* were secured on August 22nd and successive nights up to September 3rd with the exception of August 24th when clouds prevented us from obtaining